

Fighting malaria with new dual active ingredient nets in Africa

Pyrethroid-chlorfenapyr nets are 20-50% better at reducing clinical malaria cases than pyrethroid-only nets throughout sub-Saharan Africa. Between 2018 and 2022, combined procurement of pyrethroid-chlorfenapyr nets by NNP, NTI and PMI **averted an estimated 13 million malaria cases** (and approximately 24,600 deaths), leading to **\$28.9m in financial savings** to the health system.

Anopheles mosquitoes are increasingly resistant to the pyrethroid insecticides used on standard insecticidal treated nets. This may reduce the nets' ability to protect people from malaria, so we must continue to develop and test new tools.

The New Nets Project (NNP), an IVCC led consortium of partners, funded by Unitaid and The Global Fund, piloted the use of next generation nets, treated with a new dual insecticide combination, in areas of moderate to high malaria transmission throughout sub-Saharan Africa, to:



Build the evidence base confirming that countries with pyrethroid resistance should consider using the new nets over standard nets.



Ensure that country level control programmes, and the people who need them the most, have equitable and affordable access to novel vector control products.

Dual active ingredient nets:



Interceptor® G2: a net is treated with a pyrrole (chlorfenapyr), combined with a pyrethroid (alphacypermethrin), a novel mode of action in vector control.



Royal Guard®: a net treated with a pyrethroid insecticide (alphacypermethrin) and Pyriproxyfen (an insect growth regulator, IGR), an active ingredient novel on a net.

Find out more about the New Nets Project.



@invectorcontrol



Malaria Incidence** 19%	Pyrethroid-chlorfenapyr nets averted 145,343* malaria cases in Burkina Faso over 3 years.	
Malaria Incidence*** 46%	The Benin RCT demonstrated that pyrethoid-chlorfenapyr nets reduced malaria incidence by 46% when compared with standard, pyrethroid-only nets. ²	Burkina Faso Benin
Malaria Incidence** 58%	In Rwanda pyrethroid- chlorfenapyr nets averted 85,364* malaria cases over 2 years.	Rwanda Tanzania
× A A O/	Tanzania RCT demonstrated that IG2s reduced malaria incidence by 44%. ¹	Mozambique
Malaria Incidence** 35%	Pyrethroid-chlorfenapyr nets averted 85,055* malaria cases in Northern Mozambique over 2 years.	
Malaria Incidence** 29%	Pyrethroid-pyriproxyfen nets averted 59,369* malaria cases in Northern Mozambique over 2 years.	Malaria Incidence* 56% In Western Mozambique, the use of pyrethroid- chlorfenapyr nets averted 76,971* malaria cases over 2 years.
The aver	age cost per	The epidemiological evidence built Catalytic market shaping work under

The average cost per additional case of malaria averted using an Interceptor® G2 net as compared to a standard net using end of project pricing is \$0.66 - \$3.56. The epidemiological evidence built through the NNP allowed WHO-GMP to issue a strong recommendation for the deployment of pyrethroid-chlorfenapyr ITNs vs pyrethroid-only nets for prevention of malaria in adults and children in areas with pyrethroid resistance. WHO-GMP also issued a conditional recommendation for the deployment of pyrethroid-pyriproxyfen nets instead of pyrethroid-only nets to prevent malaria in adults and children in areas with pyrethroid resistance.

** In all age clinical malaria cases

*** In a cohort of children aged 6 months to 10 years

NNP increased supply and demand of

novel vector control products. This was

enhanced by the joint work of UK-based

social finance company MedAccess and

the Bill & Melinda Gates Foundation who

in 20+ countries by providing a volume

guarantee that enabled BASF to reduce

the price procurers pay for the nets.

supported access to Interceptor® G2 nets

dual-active ingredient nets, ensuring

equitable and affordable access to

¹ Mosha JF, Kulkarni MA. et al. Effectiveness and cost-effectiveness against malaria of three types of dual active-ingredient long-lasting insecticidal nets (LLINs) compared with pyrethroidonly LLINs in Tanzania: a four-arm, cluster-randomised trial, 2022; 399, 10331: 1227-1241. Funded by The Department of Health and Social Care, UK, DFID, MRC and Wellcome ² Accrombessi M, Cook J. et al. Efficacy of pyriproxyfen-pyrethroid long-lasting insecticidal nets (LLINs) and chlorfenapyr-pyrethroid LLINs compared with pyrethroid-only LLINs for malaria control in Benin: a cluster-randomised, superiority trial, 2023 (Online first).

Funding Partners Tunitaid Stress Industry Partners

* Estimated total cases averted in

the course of the evaluation

New Nets Project pilot districts over



Supporting Partners BILL & MELINDA GATES foundation

MedAccess

Implementation Partners



Imperial College London







Tulane University